ABSTRACT

SYSTEM, APPARATUS, AND METHOD OF ASSEMBLING HARD DISK DRIVE INTEGRATED LEAD SUSPENSIONS TO ARM ELECTRONICS CABLES VIA ADDITIONAL DEGREES OF FREEDOM AT THE TAIL TERMINATIONS AND IMPEDANCE GROOMING THEREOF

[0048] A system, apparatus, and method of terminating an integrated lead suspension (ILS) tail to an arm electronics cable allows plated solder material to be utilized on the ILS pads by providing additional degrees of freedom for the solder pads on the ILS tail. The additional degrees of freedom provide additional compliance between the individual pairs of solder pads that form the solder joints. In addition to a cantilever spring action in the ILS tail, the invention comprises designs that allow each individual pad to move independently out of plane of the tail as well as providing a twist capability about its axis such that each pad has its own gimbal structure.